
Division 1

SECTION 01010**BASIC CODE REVIEW INFORMATION**

NOTE: THE DESIGN-BUILD TEAM IS RESPONSIBLE FOR CONFIRMING THE APPLICABLE CODE REQUIREMENTS FOR THIS PROJECT AND COMPLYING WITH THE PROVISIONS OF SUCH CODES AND REGULATIONS OF GALLATIN COUNTY, MONTANA. THIS SECTION IS INTENDED AS A GUIDE TO ASSIST **THE** DESIGN-BUILD TEAM IN IDENTIFYING ONLY THE **MINIMUM** INFORMATION THAT MAY BE REQUIRED BY THE BUILDING AUTHORITY HAVING JURISDICTION. THE BUILDING AUTHORITY SHOULD BE CONSULTED TO DETERMINE ANY ADDITIONAL REQUIREMENTS. **Contact Person:**

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. Design Codes and Standards
- B. Basic Code Review Information
- C. Building Area
- D. Building Height
- E. Building Design Occupant Load
- F. Means of Egress
- G. Fire Resistance Rating of Building Elements
- H. Other Fire Protection Requirements
- I. Openings
- J. Plumbing Information

1.02 TABLE 10101-1 DESIGN CODES AND STANDARDS

PROJECT DESIGNED IN ACCORDANCE WITH: *(List only those that apply to the work of the project)*

1. International Building Code, 2003 Edition
2. International Energy Conservation Code, 2003 Edition.
3. International Fuel Gas Code, 2003 Edition.
4. NFPA 99c, Standard on Gas and Vacuum Systems (med gas), 2002 Edition
5. International Mechanical Code, 2003 Edition.
6. Uniform Plumbing Code, 2003 Edition
7. National Electrical Code, 2005 Edition.
8. International Energy Conservation Code, 2003 Edition
9. American Society of Engineers, Boiler and Pressure Vessel Code, 2001 Edition
10. Safety Code for Elevators and Escalators, ASME A17.1, 2000 Edition
11. ASME A17.1, 2000 Edition, Appendix N, Table N1, Recommended Inspection and test Intervals in Months
12. Occupational Safety and Health Administration (OSHA) regulations
13. Americans for Disability Act Accessibility Guidelines (ADAAGS).
14. Montana Public Works Standard Specifications, Fifth Edition, March 2003.
15. Other applicable Statutes and official requirements of the State of Montana and/or the City of Bozeman

(List all other Codes, Regulations and Standards that are applicable to the project.)

1.03 Table 01010-2 BASIC CODE REVIEW INFORMATION**1. Site Development**

(All site information is required if project affects the site or if site information is necessary for design purposes. All floodplain information is required even if project does not affect site and is not in flood plain)

1.1. Total Area of Project Site (in acres): _____**A. Total Area of Project Site that will be Disturbed/Developed (in acres):** _____**B. Municipality and/or County Where Project is Located:** _____**C. Jurisdiction for:**

(Provide the name of the applicable authority)

1. Site Work: _____**2. Fire Department:** _____ **Project in Fire District? Yes** _____ **No** _____**3. Water:** _____**4. Sewer:** _____**5. Zoning:** _____ **Land Use Zone:** _____**1.2. Is Project in a Flood Plain? Yes** _____ **No** _____**1. Flood Map Information:** _____ **Community No.:** _____ **Panel No.:** _____**2. Flood Zone:** _____ **Base Flood Elevation (BFE):** _____**3. Building Lowest Floor Elev.:** _____ (If in flood zone complete applicable table)**1.3. Is Project in Wetlands Area? Yes** _____ **No** _____**2. Occupancy****A. Occupancy Classification:** _____ **Group:** _____*If building is a mixed occupancy, indicate the additional occupancy groups present:***B. Additional Occupancy Classification(s)** _____ **Group:** _____*Provide additional lines as needed for each occupancy group in the building***3. Type of Construction****A. Construction Classification:** _____**B. Is the building construction protected or unprotected** _____**C. Is the building construction of combustible or noncombustible materials** _____**D. Is the building provided with a fire protection sprinkler system?** _____**4. General Building Design, Allowable Area, Height and Occupant Load****1.04 Table 01010-2A FLOOD LOADS (provide as applicable)****1. Elevation of Lowest Proposed Floor (applicable Zone):** _____**2. Elevation of Dry Floor proofed Floor (applicable Zone; Non-Residential):** _____**3. Elevation of the bottom of the Lowest Horizontal Structural Member of the lowest floor (applicable Zone):** _____

1.05 Table 01010-3 BUILDING AREA

Floor or Level	Square Footage (As Designed)	Square Footage as Allowed by IBC			
	Total Design Area	Without Increase	Frontage Increase	Sprinkler Increase	Total Allowable Area
First –					
Second -					
<i>Provide additional rows as needed for each floor in the building, including basements and mezzanines.</i>					
Total Floor Area (Incl. all Increases)					

1.06 Table 1010-4 BUILDING HEIGHT

	As Designed		As Allowed by IBC	
	In Feet	In Stories	In Feet	In Stories
Without any Allowable Increase				
Allowable Height Increase				
Total Height including any Allowable Increase				

1.07 Table 1010-5 BUILDING DESIGN OCCUPANT LOAD *(per IBC applicable chapters)*

	Column Identification:	A	B	C	D
Floor or Level	Occupancy Type ¹	Occupancy Floor Area ² (specify NSF or GSF)	Floor Area in SF/Occupant ³ (specify NSF or GSF)	Occupants on this floor for this Occupancy Type ⁴	Design Occupant Load
	Add additional rows as needed for each Occupancy Type on this floor				
	Subtotal Design Occupant Load for This Floor ⁵ :				
Add additional rows as needed for each floor(including any mezzanine)					
Total Building Design Occupant Load ⁶ :					
Footnotes:					
¹ Provide the name of the Occupancy Type					
² Design Area of this Occupancy on this floor in either Gross or Net square footage (include mezzanines)					
³ Allowed Floor Areas in SF per Occupant					
⁴ Divide Column A by Column B for each Occupancy and enter the result, rounded up to the nearest whole person					
⁵ Subtotal all Column C values for this floor to yield the Floor Occupant Load, rounded up to the nearest whole person					
⁶ Total Building Design Occupant Load (sum of all Column D values)					

1.08 Table 1010-6 FIRE RESISTANCE RATING OF BUILDING ELEMENTS

Building Element	Rating As Designed (in hours)	Rating As Required (in hours)	Testing Agency & Design Number (UL, FM, etc)
Structural Frame Including Columns, Girders and Trusses			
Bearing Walls, Exterior			
Bearing Walls, Interior			
Nonbearing Walls & Partitions, Exterior			
Nonbearing Walls & Partitions, Interior			
Floor Construction, Including Supporting Beams & Joists			
Roof Construction. Including Supporting Beams & Joists			
Fire Walls			
Fire Barriers			
Shaft Enclosures			
Fire Partitions			

1.09 Table 1010-7 OTHER FIRE PROTECTION REQUIREMENTS

Item	Yes	No	Comments
Are Smoke Barriers Required?			
Smoke Partitions Required?			
Protection of Penetrations Required?			
Are Penetrations per U. L. Listing/Testing Authority?			
Opening Protectives Required?			
Is Draftstopping Required?			
Is Fireblocking Required?			
Are Sprinklers Required?			
Are Standpipes Required?			
Is a Fire Alarm System Required?			
Is a Smoke Control System Required?			

1.10 Table 01010-8 OPENINGS

A. Maximum Area of Exterior Wall Openings		
1. North Wall – Unprotected and Protected Openings		
2. East Wall - Unprotected and Protected Openings		
3. South Wall - Unprotected and Protected Openings		
4. West Wall – Unprotected and Protected Openings		
B. Opening Protective Fire Protection Ratings		
Condition	Wall Rating	Opening Rating
Bearing Walls, Exterior		
Bearing Walls, Interior		
Nonbearing Walls & Partitions, Exterior		
Nonbearing Walls & Partitions, Interior		
Fire Walls		
Fire Barriers		
Shaft and Exit Enclosures		
Other Fire Barriers		
Fire Partitions		
Exit Access Corridors		
Other Fire Partitions		

1.11 Table 1010-9: STRUCTURAL DESIGN INFORMATION

(Information may be shown on initial Structural Sheet of the drawings or on the Sheet with other Code information. List the floor design loads on the structural plans.)

1 Floor Live Load _____ PSF (List the F_{ll} for each different occupancy in the building)

2 Roof Live Load _____ PSF

3 Roof Snow Load _____ PSF (If load is greater than 10 psf, complete items below)

A. Flat Roof Snow Load, P_f $P_f =$ _____

B. Snow Exposure Load, C_e $C_e =$ _____

C. Snow Load Importance Factor, I $I =$ _____

D. Thermal Factor, C_t $C_t =$ _____

4 Wind Loads

A. Basic Wind Speed, V_{3S} $V_{3S} =$ MPH

B. Wind Importance Factor, I_w $I_w =$ _____

C. Building Category _____

D. Wind Exposure _____

E. Internal Pressure Coefficient _____

F. Component and Cladding Wind Pressure _____

5 Seismic Loads

A. Seismic Use Group

B. Spectral Response Coefficient, S_d & S_{di} $S_d =$ _____ $S_{di} =$ _____

C. Site Class

D. Basic Seismic Force Resisting System

E. Design Base Shear

F. Analysis Procedure _____

1.12 Table 1010-10 PLUMBING INFORMATION

1. Minimum Number of Plumbing Fixtures Required					
(a) Water Closets:					
Group	Req'd: _____	Male: _____	Female: _____	Provided: Male: _____	Female: _____
Group	Req'd: _____	Male: _____	Female: _____	Provided: Male: _____	Female: _____
Total	Req'd: _____	Male: _____	Female: _____	Provided: Male: _____	Female: _____
(b) Lavatories:					
Group	Req'd: _____	Male: _____	Female: _____	Provided: Male: _____	Female: _____
Group	Req'd: _____	Male: _____	Female: _____	Provided: Male: _____	Female: _____
Total	Req'd: _____	Male: _____	Female: _____	Provided: Male: _____	Female: _____
(c) Drinking Fountains:					
Group	Req'd: _____	Provided: _____			
Group	Req'd: _____	Provided: _____			
Total	Req'd: _____	Provided: _____			
(d) Unisex toilet	Req'd: _____	Provided: _____			
(e) Other (list) _____	Req'd: _____	1	Provided: _____		
NOTE: The Occupant load for minimum required toilet facilities shall be the same as the Building Design Occupant Load indicated above.					

1.13 Table 1010-11: MECHANICAL INFORMATION

1. Overall Thermal Transfer Value (OTTV): _____		
2. Cooling Load: _____		S.F./Ton
3. Heating Load: _____		BTU/S.F.
4. Outside Air (CFM/Person) _____		
5. Insulation R-value:	Ext. Walls _____	Roof _____
6. Glass: U-Factor _____	SC 0	Window-to-Wall Ratio _____

1.14 Table 1010-12: ELECTRICAL INFORMATION

1. Service Transformer:	By Utility? _____	By Agency? _____
If by Agency:	KVA: _____	Primary Voltage/Phase: _____
2. Provide the following service information:		
Service Voltage/Phase: _____		Amperes: _____
Service Entrance Conductors Size: _____		Quantity per Phase: _____
Total Connected Load KVA: _____		Estimated Demand Factor: _____
Estimated Maximum Demand KVA: _____		
Available Fault Current in Symmetrical Amperes: _____		
Interrupting Capacity of Service Over current Device: _____		
Type of Grounding Electrode System(s) per NEC 250-C: _____		
3. Emergency Generator (if any):	KVA _____ Voltage/Phase _____	Fuel _____
4. Exit/Emergency Lights Backup Power:	Generator _____	Integral Battery _____
5. Emergency Egress Illumination, Minimum Footcandles: _____		
6. Fire Alarm System: Manual _____ Automatic _____ Addressable? _____ Class A or B? _____		
7. Lightning Protection Provided?: Yes _____ No _____		
7. Building Communications coordinated with OIR?*: Yes _____ Not Required _____		

END OF SECTION

SECTION 01011**SUMMARY OF PROJECT****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. General
 - 1. Project; Work covered by Contract Documents.
 - 2. Contracts.
 - 3. Administrative and procedural requirements.
 - 4. Work under other contracts.

1.02 RELATED SECTIONS

- A. Section 00700 - General Conditions: Duties and responsibilities of the Design-Builder and other parties.

1.03 PROJECT - WORK COVERED BY CONTRACT DOCUMENTS

- A. Work of the contract comprises the Project, the new Gallatin County Detention Center, located in Bozeman, Montana.

1.04 CONTRACT

- A. Perform Work under the terms of a Design-Build contract with the Owner.

**1.05 ADMINISTRATIVE AND PROCEDURAL SECTIONS
APPLICABLE TO CONTRACT**

- A. Specification Sections
 - 1. Section 01020 - Allowances.
 - 2. Section 01027 - Applications for Payment: Applications for payment.
 - 3. Section 01030 - Alternates
 - 4. Section 01035 - Change Order Procedures.
 - 5. Section 01040 - Coordination.
 - 6. Section 01041 - Project Coordination
 - 7. Section 01045 - Cutting and Patching: Coordination, cutting and patching.
 - 8. Section 01200 - Project Meetings
 - 9. Section 01300 - Submittals, Shop drawings, product data and sample Schedule of Values
 - 10. Section 01310 - Progress Schedules
 - 11. Section 01311 - Network Analysis Schedules
 - 12. Section 01400 - Quality Control: Contract quality control.
 - 13. Section 01600 - Material and Equipment: Transportation and handling, storage and protection, product options and substitutions.
 - 14. Section 01650 - Starting of Systems
 - 15. Section 01700 - Contract Closeout
 - 16. Section 01710 - Cleaning Up
 - 17. Section 01730 - Operation and Maintenance Data
 - 18. Section 01740 - Warranties and Bonds

**1.06 TEMPORARY FACILITIES AND SERVICES SECTIONS
APPLICABLE TO CONTRACT**

- A. Specification Sections
 - 1. Section 01500 - Construction Facilities and Temporary Controls: Temporary electricity, extension cords from distribution boxes, lighting and work lights required for the Work.
 - 2. Section 01500 - Construction Facilities and Temporary Controls: Separate telephone service required for the Work.
 - 3. Section 01500 - Construction Facilities and Temporary Controls: Progress cleaning of the Work; proper disposal of debris from Owner's property.
 - 4. Section 01500 - Construction Facilities and Temporary Controls: Field offices and sheds required for the Work.
 - 5. Section 01560 - Temporary Controls.

1.07 DESIGN-BUILDER'S DUTIES

- A. Except as specifically noted, provide and pay for:
 - 1. Labor, material, tools, construction equipment and machinery.
 - 2. Other facilities and services necessary for proper execution and completion of Work.
- B. Pay legally required sales, consumer and use taxes.
- C. The Design-Builder will pay costs for the following:
 - 1. Permits
 - 2. Government fees
 - 3. Licenses
 - 4. Utility connection and fees
- D. Give required notices.
- E. Comply with codes, ordinances, rules, regulations, orders, and other legal requirements of public authorities which bear on performance of Work.
- F. Promptly submit written notice to Owner's Project Manager of observed variance of Contract Documents from legal requirements.
- G. Enforce strict discipline and good order among employees. Do not employ on Work:
 - 1. Unfit persons.
 - 2. Persons not skilled in assigned task.

1.08 DESIGN-BUILDER USE OF PREMISES

- A. Design-Builder Use of Premises
 - 1. Confine operations at site to areas permitted by Law, ordinances, permits and these Contract Documents.
 - 2. Do not unreasonably encumber site with materials or equipment.
 - 3. Do not load structures with weight that will endanger structure.
 - 4. Assume full responsibility for protection and safekeeping of products stored on premises.

PART 2 PRODUCTS - NOT USED**PART 3 EXECUTION - NOT USED****END OF SECTION**

SECTION 01027**APPLICATIONS FOR PAYMENT****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Procedures for preparation and submittal of Applications for Payment.

1.02 RELATED SECTIONS

- A. Document 00500 - Agreement: Contract Sum/Price, amounts of Progress Payments and Retainages, and time schedule for submittals.
- B. Document 00700 - General Conditions: Progress Payments and Final Payment.
- C. Section 01300 - Submittals: Submittal procedures.
- D. Section 01700 - Contract Closeout: Final Payment.

1.03 FORMAT

- A. AIA G702 and G703 - Application and Certificate for Payment including continuation sheets when required.

1.04 PREPARATION OF APPLICATIONS

- A. Present required information in typewritten form.
- B. Execute certification by signature of authorized officer.
- C. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed and for stored products.
- D. List each authorized Change Order as an extension on continuation sheet, listing Change Order number and dollar amount as for an original item of Work.
- E. Prepare Application for Final Payment as specified in Section 01700.

1.05 PENCIL PAY APPLICATION

- A. Seven calendar days prior to the date of the monthly Application for Payment, the Design-Builder's project manager and superintendent shall meet at the Project Site with the Owner's Project Manager to review the Design-Builder's pencil pay progress, prepared with input from all subcontractors and suppliers and containing current and accurate progress data. The report of actual progress shall be an Updated Schedule (graphic and report) providing the percentage of Work completed and the remaining duration in calendar days for every activity in progress and showing all activities completed during the reporting period.
- B. Submit two copies of the application and updated schedule to the Owner's Project Manager.

1.06 SCHEDULE OF VALUES

- A. Before the first Application for Payment, the Design-Builder shall submit to the Owner's Project Manager a Schedule of Values allocated to various portions of the Work, prepared in such form and supported by such data to substantiate its accuracy as the Owner's Project Manager may require. This schedule, unless objected to by the Owner's Project Manager, shall be used as a basis for reviewing the Design-Builder's Application for Payment. Identify each Section of the Project Manual, plus individual categories of the General Conditions, each to include overhead and profit.

1.07 PROGRESS PAYMENTS

- A. On the fifth calendar day of each month, the Design-Builder shall submit to the Owner's Project Manager an itemized Application for Payment (AIA forms G702 and G703) for the previous month for operations completed in accordance with the Schedule of Values and the Owner's Project Manager's review comments on the pencil pay application. Such application shall be notarized, and supported by such data substantiating the Design-Builder's right to payment as the Owner may require, such as copies of requisitions from Subcontractors and material suppliers, and data reflecting retainage if provided for elsewhere in the Contract Documents. The itemized Application for Payment shall include the Updated Progress Schedule, schedule report, and floppy disks. A schedule report shall be provided with the monthly Application for Payment which shall calculate the value of Work done of each activity on the Updated Construction Schedule based on percentage complete for each activity less the amount previously paid for past percentages complete. The summation of all values of each activity less the appropriate percent of retainage shall be the amount payable to the Design-Builder, if the other specific provisions of the General Conditions concerning delinquency in progress of the Work or quality in materials and workmanship have been satisfied. In addition to the Updated Schedule information, the Design-Builder shall submit a monthly narrative report which includes descriptions of problem areas, current and anticipated delaying factors and their impact on the performance of other activities and completion dates, explanation of corrective actions taken or planned, and proposed logic for a Recovery Schedule, if required.
- B. Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the work. If approved in advance by the Owner's Project Manager, payment may similarly be made for materials and equipment suitably stored on or off site at a location agreed upon in writing. Payment made for materials and equipment stored on or off the site shall be conditioned upon compliance by the Design-Builder with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include applicable insurance, storage and transportation to the site for such materials and equipment stored off site.
- C. The Design-Builder warrants that title to all Work covered by an Application for Payment will be passed to the Owner no later than the time of payment. The Design-Builder further warrants, that upon submittal of an Application for Payment, all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Design-Builder's knowledge, information and belief, be free and clear of liens, claims, security interests and encumbrances in favor of the Design-Builder, Subcontractors, material suppliers, or other persons or entities making a claim by reason of having provided labor, materials, and equipment relating to the Work.

- D. The Owner's Project Manager will, within seven calendar days after receipt of the Design-Builder's Application for Payment, either issue to the Owner a Certificate of Payment, with a copy to the Design-Builder, for such amount as the Owner's Project Manager determines is properly due, or notify the Design-Builder and Owner in writing of the Owner's Project Manager's reason for withholding certification in whole or part.
- E. The Owner's Project Manager may decide not to certify payment and may withhold a Certificate of Payment in whole or part, to the extent reasonably necessary to protect the Owner. If the Owner's Project Manager is unable to certify payment in the amount of the Application, he/she will notify the Design-Builder and Owner. If the Design-Builder and the Owner's Project Manager cannot agree on a revised amount, the Owner's Project Manager will promptly issue a Certificate for Payment for the amount for which the Owner's Project Manager is able to make such representations to the Owner. The Owner's Project Manager may also decide not to certify payment or, because of subsequently discovered evidence or subsequent observations, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Owner's Project Manager's opinion to protect the Owner from loss because of, but not limited to, the following:
1. Defective Work not remedied;
 2. Third party claims filed or reasonable evidence indicating probable filing of such claims;
 3. Failure of the Design-Builder to make payments properly to Subcontractors or for labor, materials, or equipment;
 4. Reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
 5. Damage to the Owner or another Contractor;
 6. Reasonable evidence that the Work will not be completed within the Contract time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
 7. Persistent failure to carry out the Work in accordance with the Contract Documents.
- F. When the reasons for withholding certification are removed, to the satisfaction of the Owner's Program Manager, certification will be made by Owner's Program Manager for amount previously withheld.
- G. The Design-builder shall promptly pay each Subcontractor, upon receipt of payment from the Owner, out of the amount paid to the Design-Builder on account of each Subcontractor's portion of the Work, the amount paid to which said Subcontractor is entitled, reflecting percentages actually retained from payments to the Design-Builder, on account of such Subcontractor's portion of the Work. The Design-Builder shall, by appropriate agreement with each Subcontractor, make payment to each Sub-subcontractor in similar manner.
- H. Neither the Owner nor Owner's Project Manager shall have an obligation to pay or to see the payment of money to a Subcontractor of any tier except as may otherwise be required by law.
- I. A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

1.08 RETAINAGE

- A. All payments made pursuant to this Contract shall be subject to retainage in the amount of ten percent (10%) of each payment. Retained moneys shall be the Owner's money until all conditions of this Contract are met.

- B. Retainage shall apply to all pay applications provided, however that when fifty percent (50%) of the Contract price is due, and the manner of completion of the Contract Work and its progress are reasonably satisfactory to the Owner, the Owner, at its sole discretion, may withhold retainage in the amount of the five percent (5%) of each payment thereafter.
- C. At Substantial Completion of the Work, the Owner shall, within thirty (30) days after receipt of payment application and other appropriate documentation and certification as may be required by the Contract Documents, pay fifty percent (50%) of the total retainage held to date to the Design-Builder.
- D. In the event that Substantial Completion of any portions of the Work precedes Substantial Completion of the entire Facility, the Design-Builder may make application for a prorated portion of the retainage pursuant to the other conditions of the Contract Documents. Determination of the prorated portion of retainage applicable to any portion of the Facility shall be based solely on the ratio of square footage of that portion to the total square footage of the Facility.

1.09 FINAL PAYMENT

- A. Upon receipt of written notice from the Design-Builder that the Work or any portion thereof is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Owner's Project Manager will promptly make such inspection and, when the Owner's Project Manager finds the Work acceptable under the Contract Documents and the Contract fully performed, the Owner's Project Manager will promptly issue a final Certificate for Payment stating that to the best of his/her knowledge, information, and belief, and on the basis of his/her observations and inspections, the Work has been completed in accordance with terms and conditions of the Contract Document and that the entire balance found to be due the Design-Builder and noted in said final Certificate of Payment will constitute a further representation that conditions precedent to the Design-Builder being entitled to final payment have been fulfilled.
- B. Neither final payment nor any remaining retained percentage shall become due until the Design-Builder has obtained Substantial Completion and submits to the Owner all of the close-out documents and (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect and will not be canceled or allowed to expire until at least 30 days prior written notice has been given Owner, (3) a written statement that the Design-Builder knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of Surety, if any, to final payment and (5), if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Design-Builder may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Design-Builder shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien, including all costs and reasonable attorney's fees occurred by the Owner.

- C. Acceptance of final payment by the Design-Builder, a Subcontractor, or material supplier shall constitute a waiver of all claims by that payee except those who previously made in writing and identified by that payee as unsettled at the time of final Application of Payment.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01030**ALTERNATES****PART 1 GENERAL****1.01 DESCRIPTION**

- A. This section identifies each Alternate by number and describes the basic changes to be incorporated into the Work when that Alternate is made a part of the Work by specific provisions in the Agreement. Between Owner and Design-Builder.
- B. Related requirements in other parts of the Project Manual:
 - 1. Method of quotation of each Alternate and basis of Owner's acceptance: Bidding Documents.
 - 2. Incorporating Alternates into Work: Owner – Design-Builder Agreements.
 - 3. Summary of Work: General Conditions and Section 01011 of the Specifications.
 - 4. Sections of Specifications as listed under respective Alternates.
- C. Referenced specification sections stipulate pertinent requirements for products and methods to achieve the work stipulated under each Alternate.
- D. Coordinate pertinent related work. Modify surrounding work as required to properly integrate the work under each Alternate and to provide complete construction required by Contract Documents.
- E. The requirements of this section may be related to, but shall not be confused with, requirements of the Contract Documents related to "change orders", "substitutions" or similar terms.
- F. The description for each alternate listed below is recognized to be incomplete and abbreviated, but implies that each change shall be complete for the scope of work affected. Refer to applicable specification sections and drawings for specific requirements of the work for each alternate.

1.02 DESCRIPTION OF BASE BID

- A. Provide Base Bid for construction of the new Gallatin County Detention Center described on drawings and in specifications of the RFP for design-build services. Base Bid includes but is not limited to site clearing, earthwork, footing excavation, asphalt concrete paving, concrete curbs and walks, concrete masonry, concrete slabs and footings, structural steel, metal fabrications, rough carpentry, finish carpentry and millwork, gypsum board, rigid and batt insulation, metal doors and frames, door hardware, glazing, suspended acoustical treatment, resilient flooring, interior and exterior painting, built-up and metal roofing, gutters and downspouts, tile work, toilet accessories, roof hatches, security electronics, security hardware, security metals, security furnishings, electrical, plumbing, and mechanical systems.

1.03 DESCRIPTION OF ALTERNATE(S)

A.1 Food Service Equipment: Additional food service equipment required for projected future meal production of three (3) meals per day for 300 inmates plus staff.

END OF SECTION

SECTION 01035**CHANGE ORDER PROCEDURES****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. General
 - 1. Submittals.
 - 2. Documentation of change in Contract Sum/Price and Contract Time.
 - 3. Change procedures.
 - 4. Construction Change Authorization.
 - 5. Execution of change orders.
 - 6. Correlation of Contractor submittals.

1.02 RELATED SECTIONS

- A. Sections
 - 1. Document 00700 - General Conditions: Governing requirements for changes in the Work, in Contract Sum/Price, and Contract Time.
 - 2. Section 01027 - Applications for Payment: Schedule of Values. Payment applications.
 - 3. Section 01300 - Submittals
 - 4. Section 01310 - Progress Schedules
 - 5. Section 01311 - Network Analysis Schedules: Work schedule.
 - 6. Section 01600 - Material and Equipment: Product options and substitutions.
 - 7. Section 01700 - Contract Closeout: Project Record Documents.

1.03 SUBMITTALS

- A. Submit name of the individual authorized to receive change documents, and be responsible for informing others in Design-Builder's employ or Subcontractors of changes to the Work.
- B. Change Order Forms: AIA G701.

1.04 DOCUMENTATION OF CHANGE IN CONTRACT SUM/PRICE AND CONTRACT TIME

- A. Maintain detailed records of work done. Provide full information required for evaluation of proposed changes, and to substantiate costs of changes in the Work.
- B. Document each quotation for a change in cost or time with sufficient data to allow evaluation of the quotation.
- C. On request, provide additional data to support computations:
 - 1. Quantities of products, labor, and equipment.
 - 2. Taxes, insurance and bonds.
 - 3. Overhead and profit.
 - 4. Justification for any change in Contract Time.
 - 5. Credit for deletions from Contract, similarly documented.
- D. Support each claim for additional costs, and for work done on a time and material basis, with additional information:
 - 1. Origin and date of claim.
 - 2. Dates and times work was performed, and by whom.
 - 3. Time records and wage rates paid.
 - 4. Invoices and receipts for products, equipment, and subcontracts, similarly documented.

1.05 CHANGE PROCEDURES

- A. The Owner's Project Manager will advise of minor changes in the Work not involving an adjustment to Contract Sum/Price or Contract Time as authorized by the General Conditions.

- B. The Owner's Project Manager may issue a Proposal Request which includes a detailed description of a proposed change with supplementary or revised Drawings and specifications. Design-Builder will prepare and submit an estimate (cost and schedule) within 10 days.
- C. The Design-Builder may propose a change by submitting a request for change to the Owner's Project Manager, describing the proposed change and its full effect on the Work, with a statement describing the reason for the change, and the effect on the Contract Sum/Price and Contract Time with full documentation. Document any requested substitutions in accordance with Section 01600.

1.06 CONSTRUCTION CHANGE AUTHORIZATION

- A. Owner's Project Manager may issue a document, signed by the Owner, instructing the Design-Builder to proceed with a change in the Work, for subsequent inclusion in a Change Order. No claim for additional work, either to the contract sum, price, or time, shall be valid unless so ordered by the Owner.
- B. The document will describe changes in the Work, and will designate method of determining any change in Contract Sum/Price or Contract Time.
- C. Promptly execute the change in Work.

1.07 CHANGE ORDER

- A. Submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract.
- B. Owner's Project Manager will determine the change allowable in Contract Sum/Price and Contract Time as provided in the Contract Documents.
- C. Provide detailed information (detailed and itemized showing quantities and unit pricing of actual costs) required for evaluation of proposed changes, and to substantiate costs for changes in the Work.

1.08 EXECUTION OF CHANGE ORDERS

- A. Execution of Change Orders: Owner's Project Manager will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.

1.09 CORRELATION OF CONTRACTOR SUBMITTALS

- A. Promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Sum/Price.
- B. Promptly revise progress schedules to reflect any change in Contract Time, revise sub-schedules to adjust time for other items of work affected by the change, and resubmit.
- C. Promptly enter changes in Project Record Documents.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01040**COORDINATION****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Coordination.
- B. Preconstruction conference.

1.02 RELATED SECTIONS

- A. Section 01045 - Cutting and Patching.

1.03 COORDINATION

- A. Coordinate scheduling, submittals, and Work of the various Sections of specifications to assure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- B. Verify that utility requirement characteristics of operating equipment are compatible with building utilities. Coordinate work of various Sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- C. Coordinate space requirements and installation of mechanical and electrical work which are indicated diagrammatically on Drawings. Follow routing shown for pipes and conduit as closely as practicable; place runs parallel with line of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- D. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- E. Coordinate completion and clean up of Work of separate Sections in preparation for Substantial Completion.
- F. Coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

PART 2 PRODUCTS - NOT USED**PART 3 EXECUTION - NOT USED****END OF SECTION**

SECTION 01041**PROJECT COORDINATION****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Project coordination administrator.
- B. Construction mobilization.
- C. Schedules.
- D. Submittals.
- E. Coordination drawings.
- F. Closeout procedures.

1.02 RELATED SECTIONS

- A. Section 01011 - Summary of Project: Work sequence and Owner occupancy.
- B. Section 01040 - Coordination and Section 01200 - Project Meetings: Project meetings, Preconstruction conferences, Progress meetings.
- C. Section 01700 - Contract Closeout: Contract closeout procedures.

1.03 OWNER'S PROJECT MANAGER

- A. The Owner's Project Manager will be either a member of the Owner's staff or a third party working under a contractual arrangement with the Owner to represent the Owner's interests.

1.04 CONSTRUCTION MOBILIZATION

- A. Cooperate with the Owner's Project Manager in allocation of mobilization areas of site; for field offices and sheds, for insuring access, traffic, and parking facilities.
- B. During construction, coordinate use of site and facilities through the Owner's Project Manager.
- C. Comply with Owner's Project Manager's procedures for intra-project communications; submittals, reports and records, schedules, coordination drawings, and recommendations; and resolution of ambiguities and conflicts.
- D. Comply with instructions of the Owner's Project Manager for use of temporary utilities and construction facilities.
- E. Coordinate filed engineering and layout work under instructions of the Owner's Project Manager.

1.05 SCHEDULES

- A. Submit preliminary progress schedule in accordance with Section 01310, coordinated with Project construction schedule.
- B. After review, revise and resubmit schedule to comply with revised Project schedule.
- C. During progress of Work, revise and resubmit, with Applications for Payment.

1.06 SUBMITTALS

- A. Submit to Owner's Project Manager preliminary shop drawings, product data and samples in accordance with Section 01300 for review and compliance with Contract Documents, for field dimensions and clearances, for relation to available space, and for relation to work of separate contracts. Revise and resubmit as required. The Design-Builder shall conduct an initial review of shop drawings and other documents as noted above before forwarding "approved" shop documents to the Owner's Project Manager.
- B. Submit applications for payment on AIA G702 and G703 forms for review, and for transmittal to Owner's Project Manager.
- C. Submit requests for interpretation of Contract Documents, and obtain instructions through Owner's Project Manager
- D. Process requests for substitutions and change orders through Owner's Project Manager.
- E. Deliver closeout submittals for review and preliminary inspection reports for transmittal to Owner's Project Manager

1.07 COORDINATION DRAWINGS

- A. Provide information required by Owner's Project Manager for preparation of coordination drawings.
- B. Review drawings prior to submission to Owner's Project Manager.

1.08 CLOSEOUT PROCEDURES

- A. Notify Owner's Project Manager when Work is considered ready for Substantial Completion. Accompany Owner's Project Manager on preliminary inspection to determine items to be listed for completion or correction in Design-Builder's notice of Substantial Completion.
- B. Comply with Owner's Project Manager's instructions to correct items of Work listed in executed Certificates of Substantial Completion and for access to Owner-occupied areas.
- C. Comply with Owner's Project Manager's instructions for completion of items of Work determined by the Owner's Project Manager's final inspection.

PART 2 PRODUCTS - NOT USED**PART 3 EXECUTION - NOT USED****END OF SECTION**

SECTION 01045**CUTTING AND PATCHING****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Requirements and limitations for cutting and patching of Work.

1.02 RELATED SECTIONS

- A. Section 01300 - Submittals.
- B. Individual Product Specification Sections:
 - 1. Cutting and patching incidental to work of the Section.
 - 2. Advance notification to other Sections of openings required in work of those Sections.

1.03 SUBMITTALS

- A. Submit to Owner's Project Manager written request in advance of cutting or alteration which affects:
 - 1. Structural integrity of any element of Project.
 - 2. Integrity of weather-exposed or moisture-resistant element.
 - 3. Efficiency, maintenance, or safety of any operational element.
 - 4. Visual qualities of sight exposed elements.
- B. Include in request:
 - 1. Identification of Project.
 - 2. Location and description of affected work.
 - 3. Necessity for cutting or alteration.
 - 4. Description of proposed work, and products to be used.
 - 5. Alternatives to cutting and patching.
 - 6. Date and time work will be executed.

PART 2 PRODUCTS**2.01 MATERIALS**

- A. Primary Products: Those required for original installation.

PART 3 EXECUTION**3.01 EXAMINATION**

- A. Inspect existing conditions prior to commencing Work, including elements subject to damage or movement during cutting and patching.
- B. After uncovering existing work, inspect conditions affecting performance of work.
- C. Beginning of cutting or patching means acceptance of existing conditions.

3.02 PREPARATION

- A. Provide temporary supports to ensure structural integrity of the Work. Provide devices and methods to protect other portions of Project from damage.
- B. Provide protection from elements for areas which may be exposed by uncovering work.
- C. Maintain excavations free of water.

3.03 CUTTING AND PATCHING

- A. Execute cutting, fitting, and patching including excavation and fill to complete work.
- B. Fit products together, to integrate with other work.
- C. Uncover work to install ill-timed work.
- D. Remove and replace defective or non-conforming work.
- E. Remove samples of installed work for testing.
- F. Provide openings in the work for penetration of mechanical and electrical work.

3.04 PERFORMANCE

- A. Execute work by methods to avoid damage to other Work and to provide appropriate surfaces to receive patching and finishing.
- B. Employ original installer to perform cutting and patching for weather exposed and moisture resistant elements, and sight-exposed surfaces.
- C. Cut rigid materials using masonry saw or core drill. Pneumatic tools will not be allowed without prior approval.
- D. Restore work with new products in accordance with requirements of Contract Documents.
- E. Fit work to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- F. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material to full thickness of the penetrated element.
- G. Refinish surfaces to match adjacent finish. For continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.

END OF SECTION

SECTION 01200**PROJECT MEETINGS****PART 1 GENERAL****1.01 PRECONSTRUCTION CONFERENCE**

- A. Owner's Project Manager will schedule a preconstruction conference after Notice of Award.
- B. Attendance Required: Owner / Owner's Project Manager, Design-Builder, Design-Builder's Architect and Superintendent, and major Subcontractors.
- C. Agenda:
 - 1. Execution of Owner – Design-Builder Agreement.
 - 2. Submission of executed bonds and insurance certificates.
 - 3. Distribution of Contract Documents.
 - 4. Submission of list of Subcontractors, list of products, Schedule of Values, and progress schedule.
 - 5. Designation of personnel representing the parties in Contract, and the Owner's Project Manager.
 - 6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders and Contract close-out procedures.
 - 7. Scheduling.
 - 8. Scheduling activities of geotechnical Engineer.
 - 9. Owner's requirements.
 - 10. Construction facilities and controls provided by Owner.
 - 11. Survey and building layout.
 - 12. Security and housekeeping procedures.
 - 13. Procedures for quality control.
 - 14. Requirements for start-up of equipment.
 - 15. Inspection and acceptance of equipment put into service during construction period.

1.02 PROGRESS MEETINGS

- A. Owner's Project Manager will schedule and administer meetings throughout progress of the Work at minimum monthly intervals.
- B. Owner's Project Manager will make arrangements for meetings, prepare agenda with copies for participants, preside at meetings, record minutes, and distribute copies within seven days to attendees.
- C. Attendance Required: Design-Builder, Architect, job superintendent, major Subcontractors and suppliers, Owner's Project Manager as appropriate to agenda topics for each meeting.
- D. Agenda:
 - 1. Review minutes of previous meetings.
 - 2. Review of Work progress.
 - 3. Field observations, problems, and decisions.
 - 4. Identification of problems which impede planned progress.
 - 5. Review of submittals schedule and status of submittals.
 - 6. Review of off-site fabrication and delivery schedules.
 - 7. Maintenance of progress schedule.

8. Corrective measures to regain projected schedules.
9. Planned progress during succeeding work period.
10. Coordination of projected progress.
11. Maintenance of quality and work standards.
12. Effect of proposed changes on progress schedule and coordination.
13. Other business relating to Work.

1.03 PREINSTALLATION CONFERENCES

- A. When required in individual specification Section, convene a reinstallation conference at work site prior to commencing work of the Section.
- B. Require attendance of parties directly affecting, or affected by, work of the specific Section.
- C. Notify Owner's Project Manager four business days in advance of meeting date.
- D. Prepare agenda, preside at conference, record minutes, and distribute copies within two business days after conference to participants, with two copies to Owner's Project Manager.
- E. Review conditions of installation, preparation and installation procedures, and coordination with related work.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01300**SUBMITTALS****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. General
 - 1. Submittal procedures.
 - 2. Submittal List
 - 3. Proposed products list.
 - 4. Shop drawings.
 - 5. Product data.
 - 6. Samples.
 - 7. Manufacturers' instructions.
 - 8. Manufacturers' certificates.
 - 9. Design-Builder's, Architect/Engineer's action.

1.02 RELATED SECTIONS

- A. Section 01027 - Applications for Payment: Schedule of Values.
- B. Section 01700 - Contract Closeout: Contract warranty and manufacturer's certificates closeout submittals.

1.03 SUBMITTAL PROCEDURES

- A. Identify Project, Design-Builder, Subcontractor or supplier; pertinent Drawing sheet and detail number(s), and specification Section number, as appropriate.
- B. Apply Design-Builder's stamp, signed or initialed certifying that review, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with the requirements of the Work and Contract Documents.
- C. Schedule submittals to expedite the Project, and deliver to Owner's Project Manager at business address. Coordinate submission of related items. Allow 2 weeks for initial Owner's Project Manager's review, and 1 week for each party for resubmitted reviews, plus distribution time. Failure of the Design-Builder to schedule submittal process in ample time for review, correction, and re-submittal will not justify an extension of time to the contract.
- D. Identify variations from Contract Documents and Product or system limitations which may be detrimental to successful performance of the completed Work.
- E. Group submittals into systems, processes, and as indicated by individual specification section. Submissions shall be complete and in orderly sequence.
- F. Provide space for Design-Builder's and Owner's Project Manager's review stamps.
- G. Revise and resubmit submittals as required, identify all changes made since previous submittal.
- H. Distribute copies of reviewed submittals to concerned parties. Instruct parties to promptly report any inability to comply with provisions.

- I. No work to commence which requires submittal information until such information is approved by the Owner's Project Manager.

1.04 SUBMITTAL LOG

- A. The Design-Builder shall develop and maintain a Shop Drawing submittal log and place forward copies of such log to the Owner's Project Manager on a weekly basis beginning with the first shop drawing submittal.

1.05 PROPOSED PRODUCTS LIST

- A. **NOTE:** Manufacturers listed indicate those companies providing products that meet minimum quality standards required for this project. Design-Builders may request the approval of products manufactured by other manufacturer(s) subject to demonstrating that the proposed substitution is equal in all respects to the specified product and also subject to approval of the Owner's Project Manager.
- B. Within 15 days after date of Owner – Design-Builder Agreement, submit complete list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
- C. For products specified only by reference standards, identify manufacturer, trade name, model or catalog designation, and reference standards.

1.06 SHOP DRAWINGS

- A. Submit the number of opaque reproductions and copies which Design-Builder requires, plus four copies which will be retained by Owner's Project Manager.
- B. After review, distribute in accordance with Article on Procedures above and for Record Documents described in Section 01700 - Contract Closeout.

1.07 PRODUCT DATA

- A. Submit the number of copies which the Design-Builder requires, plus four copies which will be retained by the Owner's Project Manager.
- B. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information unique to this Project.
- C. After review, distribute in accordance with Article on Procedures above and provide copies for Record Documents described in Section 01700 - Contract Closeout.

1.08 SAMPLES

- A. Submit samples to illustrate functional and aesthetic characteristics of the Product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
- B. Submit samples of finishes from the full range of manufacturers' standard colors, textures, and patterns for Owner's Project Manager's selection.
- C. Include identification on each sample, with full Project information.

- D. Submit the number or samples specified in individual specification Sections, three of which will be retained by Owner's Project Manager.
- E. Reviewed samples which may be used in the Work are indicated in individual specification Sections.

1.09 MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual specification Sections, submit manufacturers' printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, in quantities specified for Product Data.
- B. Identify conflicts between manufacturers' instructions and Contract Documents.

1.10 MANUFACTURER'S CERTIFICATES

- A. When specified in individual specification Sections, submit four copies (total) of the manufacturers' certificate to Owner's Project Manager for review, in quantities specified for Product Data.
- B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or Product, but must be acceptable to Owner's Project Manager.

1.11 OWNER'S PROJECT MANAGER'S ACTION

- A. The Owner's Project Manager will review each submittal marking it with the appropriate "Action". Where the submittal must be held for coordination, the Owner's Project Manager will so advise the Design-Builder.
- B. Items submitted as a shop drawing that are not specified or without the Design-Builder's approval stamped will be returned without action.
- C. The Owner's Project Manager will stamp each submittal to be returned with a uniform, self explanatory action stamp, appropriately marked and executed.
 - 1. Reviewed
 - a. Final Unrestricted Release: Work covered by the submittal may proceed provided it complies with the requirements of the Contract Documents; acceptance of the work will depend upon that compliance.
 - 2. Reviewed as Noted
 - a. Final but Restricted Release: Work covered by this submittal may proceed provided it complies with both the Owner's Project Manager's notations or corrections on the submittal and with the requirements of the Contract Documents; acceptance of the work will depend on that compliance.
 - 3. Revise and Resubmit
 - a. Returned for Resubmittal: Do not proceed with the work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise the submittal or prepare a new submittal in accordance with the Owner's Project Manager notations stating the reasons for returning the submittal; resubmit the submittal without delay. Do not permit submittals marked "Revise and Resubmit" at the project site, or elsewhere work is in progress.

4. Rejected
 - a. Rejected: Do not proceed with work covered by this submittal. This marking indicates that the submittal does not meet the design concept of the project and does not conform with the Contract Documents.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01311**NETWORK ANALYSIS SCHEDULES****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. General
 - 1. References.
 - 2. Format.
 - 3. Schedules.
 - 4. Submittals.
 - 5. Review and evaluation.
 - 6. Updating schedules.
 - 7. Distribution.

1.02 RELATED SECTIONS

- A. Section 01011 - Summary of Project: Work sequence Owner occupancy Owner-furnished items.
- B. Section 01027 - Applications for Payment: Application for payment.
- C. Section 01035 - Change Order Procedure: Changes in the Work.
- D. Section 01300 - Submittals: Shop drawings, product data, and samples.

1.03 FORMAT

- A. Listings: Reading from left to right, in ascending order for each activity. Identify each activity with the applicable specification Section number.
- B. Diagram Sheet: width as required.

1.04 SCHEDULES

- A. Prepare network analysis diagrams and supporting mathematical analyses using the Critical Path Method.
- B. Diagrams to illustrate order and interdependence of activities and sequence of work, how start of a given activity depends on completion of preceding activities, and how completion of the activity may restrain start of subsequent activities.
- C. Illustrate complete sequence of construction by activity, identifying work of separate floors. Provide dates for submittals including those for Owner furnished items and return of submittals; dates for procurement and delivery of critical products; and dates for installation and provision for testing. Provide legend for symbols and abbreviations used.
- D. Mathematical Analysis: Tabulate each activity of detailed network diagrams, using calendar dates, and identifying for each activity:
 - 1. Preceding and following event numbers.
 - 2. Activity description.
 - 3. Estimated duration of activity, in maximum 14 day intervals.
 - 4. Earliest start date.
 - 5. Earliest finish date.

6. Actual start date.
 7. Actual finish date.
 8. Latest start date.
 9. Latest finish date.
 10. Total and free float.
 11. Monetary value of activity, keyed to Schedule of Values.
 12. Percentage of activity completed.
 13. Responsibility.
- E. Analysis Program: Capable of compiling monetary value of completed and partially completed activities, of accepting revised completion dates, and recomputation of all dates and float.
- F. Required Sorts: List activities in sorts or groups:
1. By amount of float, then in order of early start.
 2. Design-Builder's periodic payment request sorted by Schedule of Values listings specification sections.
 3. Listing of activities on the critical path.
- G. Coordinate contents with Schedule of Values in Section 01027.

1.05 SUBMITTALS

- A. Within 15 days after date established in Notice to Proceed, submit proposed preliminary network diagram defining planned operations for the first 60 days of Work, with a general outline for remainder of Work.
- B. Participate in review of preliminary and complete network diagrams jointly with Owner's Program Manager.
- C. Within 7 days after joint review of proposed preliminary network diagram, submit draft of proposed complete network diagram for review. Include written certification that major Subcontractors have reviewed and accepted proposed schedule.
- D. Within 15 days after joint review, submit complete network analysis consisting of network diagrams and mathematical analysis.
- E. Submit updated network schedules with each Application for Payment.
- F. Submit two copies, plus two copies which will be retained by Design-Builder.
- G. Submit under transmittal letter form specified in Section 01300.

1.06 REVIEW AND EVALUATION

- A. Evaluate project status to determine work behind schedule and work ahead of schedule. If any item is 5 days or more behind schedule, submit a recovery schedule.
- B. After review, revise as necessary as result of review, and resubmit with 10 days.

1.07 UPDATING SCHEDULES

- A. Maintain schedules to record actual start and finish dates of completed activities.
- B. Indicate progress of each activity to date of revision, with projected completion date of each activity. Update diagrams to graphically depict current status of Work.

- C. Identify activities modified since previous submittal, major changes in Work, and other identifiable changes.
- D. Indicate changes required to maintain Date of Substantial Completion.
- E. Submit sorts required to support recommended changes.
- F. Provide narrative report to define problem areas, anticipated delays, and impact on Schedule. Report corrective action taken, or proposed, and its effect .

1.08 DISTRIBUTION

- A. Following joint review, distribute copies of updated schedules to Design-Builder's project site file, to Subcontractors, suppliers, Owner's Program Manager and Owner.
- B. Instruct recipients to promptly report, in writing, problems anticipated by projections shown in schedules.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01400**QUALITY CONTROL****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. General
 - 1. Quality assurance and control of installation.
 - 2. Quality control (QC) program
 - 3. References.
 - 4. Inspection and testing laboratory services.
 - 5. Manufacturers' field services and reports.

1.02 RELATED SECTIONS

- A. Section 01300 - Submittals: Submission of Manufacturers' Instructions and Certificates.
- B. Section 01600 - Material and Equipment: Requirements for material and product quality.

1.03 QUALITY ASSURANCE/CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, Products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply fully with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Owner's Project Manager before proceeding.
- D. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform work by persons qualified to produce workmanship of specified quality.
- F. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

1.04 QUALITY CONTROL (QC) PROGRAM

- A. General Requirements:
 - 1. The Design-Builder shall provide and maintain an effective Quality Control (QC) program and perform sufficient inspections and tests of all items of work, including those of subcontractors, to insure compliance with the Contract Documents.
- B. Design-Builder's Quality Program Manual to be furnished as part of its quality program, shall address, as a minimum, the following areas:
 - 1. Authority and responsibility
 - 2. Organization and policy
 - 3. Drawings and specification control
 - 4. Material control including a formal storage plan
 - 5. Examination and inspections

6. Non-conformance (Design-Builder to prepare its own Non-conformance Report)
7. Maintenance procedure
8. Record retention and control
9. Record Drawings
10. Safety

1.05 REFERENCES

- A. References
 1. Conform to reference standard by date of issue current on date of Contract Documents.
 2. Obtain copies of standards when required by Contract Documents.
 3. Should specified reference standards conflict with Contract Documents, request clarification from Owner's Project Manager before proceeding.
 4. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.06 INSPECTION AND TESTING LABORATORY SERVICES

- A. Employment and payment for services of an independent testing agency or laboratory to perform specified testing, by Owner.
- B. Employment of testing agency or laboratory in no way relieves Design-Builder of obligation to perform Work in accordance with requirements of Contract Documents.
- C. The materials testing firm will perform inspections, tests, and other services specified in individual specification Sections and as required by the Owner's Project Manager.
- D. Reports will be submitted by the materials testing firm to the Owner's Project Manager, in duplicate, indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents.
 1. Date issued.
 2. Project title and number.
 3. Name of inspector.
 4. Date and time of sampling or inspection.
 5. Identification of product and specifications section.
 6. Location in the Project.
 7. Type of inspection or test.
 8. Date of test.
 9. Results of tests.
 10. Conformance with Contract Documents.
- E. Cooperate with independent firm; furnish samples of materials, design mix, equipment, tools, storage and assistance as requested.
 1. Notify Owner's Project Manager 24 hours prior to expected time for operations requiring services.
 2. Make arrangements with independent firm and pay for additional samples and tests required for Design-Builder's use.
- G. Retesting required because of non-conformance to specified requirements shall be performed by the same independent firm on instructions by the Owner's Project Manager. Payment for retesting will be charged to the Design-Builder.

1.07 MANUFACTURERS' FIELD SERVICES AND REPORTS

- A. When specified in individual specification Sections, require material or Product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust, and balance of equipment and as applicable, and to initiate instructions when necessary.
- B. Individuals to report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
- C. Submit report in duplicate within 14 days of observation to Owner's Project Manager for review.

PART 2 PRODUCTS - NOT USED**PART 3 EXECUTION - NOT USED****END OF SECTION**

SECTION 01500**CONSTRUCTION FACILITIES AND TEMPORARY PROTECTION****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Temporary Utilities: Electricity, lighting, heat, ventilation, telephone service, water, and sanitary facilities.
- B. Temporary Protection: Barriers, enclosures and fencing, protection of the Work, and water control.
- C. Construction Facilities: Access roads, parking, progress cleaning, project signage, and temporary buildings.

1.02 RELATED SECTIONS

- A. Section 01560 - Temporary Controls.
- B. Section 01700 - Contract Closeout: Final cleaning.

1.03 TEMPORARY ELECTRICITY

- A. Provide and pay for power service required from Utility source.
- B. Provide power outlets for construction operations, with branch wiring and distribution boxes. Provide flexible power cords as required.
- C. Provide meter.
- D. Permanent convenience receptacles may be utilized during construction.

1.04 TEMPORARY LIGHTING

- A. Provide and maintain incandescent lighting for construction operations to achieve a minimum lighting level of 2 watts/sq ft.
- B. Provide and maintain 1 watt/sq ft lighting to exterior staging and storage areas after dark for security purposes.
- C. Provide and maintain 0.25 watt/sq ft H.I.D. lighting to interior work areas after dark for security purposes.
- D. Provide branch wiring from power source to distribution boxes with lighting conductors, pigtails, and lamps as required.
- E. Maintain lighting and provide routine repairs.
- F. Permanent building lighting may be utilized during construction.

1.05 TEMPORARY HEAT

- A. Provide and pay for heat devices and heat (if any) as required to maintain specified conditions for construction operations.

- B. Prior to operation of permanent equipment for temporary heating purposes, verify that installation is approved for operation, equipment is lubricated and filters are in place. Provide and pay for operation, maintenance, and regular replacement of filters and worn or consumed parts.
- C. Maintain minimum ambient temperature of 50 degrees F in areas where construction is in progress, unless indicated otherwise in specifications.

1.06 TEMPORARY VENTILATION

- A. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.

1.07 TELEPHONE SERVICE

- A. Provide, maintain and pay for telephone service to field offices at time of project mobilization.

1.08 TEMPORARY WATER SERVICE

- A. Provide, maintain and pay for suitable quality water service required.

1.09 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures.

1.10 BARRIERS AND SIGNAGE

- A. Provide barriers and signage to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations.

1.11 FENCING

- A. Construction: Commercial grade chain link fence.
- B. Provide 6 foot high fence around construction site; equipped with vehicular gates with locks.

1.12 EXTERIOR ENCLOSURES

- A. Provide temporary weather-tight closure of exterior openings to accommodate acceptable working conditions and protection for Products, to allow for temporary heating and maintenance of required ambient temperatures identified in individual specification Sections, and to prevent entry of unauthorized persons. Provide access doors with self-closing hardware and locks.

1.13 PROTECTION OF INSTALLED WORK

- A. Protect installed Work and provide special protection where specified in individual specification Sections.
- B. Provide temporary and removable protection for installed Products. Control activity in immediate work area to minimize damage.
- C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- D. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.

- E. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- F. Prohibit traffic from landscaped areas.

1.14 FIELD OFFICES AND SHEDS

- A. Office: Weather-tight, with lighting, electrical outlets, heating, cooling and ventilating equipment, and equipped with sturdy furniture, drawing rack and drawing display table.
- B. Locate offices and sheds a minimum distance of 30 feet from existing and new structures.
- C. The trailers, field offices, and sheds can not be placed on site until the Owner's Project Manager gives approval of the location plan provided by the Design-Builder.

1.15 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary above grade or buried utilities, equipment, facilities, materials, prior to Substantial Completion inspection.
- B. Remove underground installations to a minimum depth of 2 feet.
- C. Clean and repair damage caused by installation or use of temporary work.
- D. Restore existing facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

1.16 SITE CONSTRUCTION SIGN

- A. Design-Builder is responsible for providing a site construction sign at the entrance to the Project. The sign shall be approximately 4 feet by 8 feet in size and of sturdy construction utilizing suitable materials to withstand exposure for the duration of the Work. The sign shall consist of the Project name and a listing of the Owner's Project Manager and Design-Builder. The Design-Builder shall submit proofs of the sign for Owner's Project Manager's approval prior to painting the sign. The sign shall be erected within forty-five (45) calendar days from Notice to Proceed.

1.17 TEMPORARY FACILITIES

- A. The Design-Builder shall provide and maintain sufficient toilet facilities, water, and ice for all workers employed for this project.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01560
TEMPORARY CONTROLS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Water Control.
- B. Dust Control.
- C. Pollution Control.

1.02 RELATED SECTIONS

- A. Section 01011 - Summary of Project: Design-Builder use of premises, Maintenance of operations.
- B. Section 01041 - Project Coordination.
- C. Section 01500 - Construction Facilities and Temporary Protection.

1.03 WATER CONTROL

- A. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.

1.04 DUST CONTROL

- A. Execute Work by methods to minimize raising dust from construction operations.
- B. Provide positive means to prevent air-borne dust from dispersing into atmosphere.

1.05 POLLUTION CONTROL

- A. Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01600**MATERIAL AND EQUIPMENT****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. General
 - 1. Products.
 - 2. Transportation and handling.
 - 3. Storage and protection.
 - 4. Product options.
 - 5. Substitutions.

1.02 RELATED SECTIONS

- A. Section 01400 - Quality Control: Product quality monitoring.

1.03 PRODUCTS

- A. Products: Means new material, machinery, components, equipment, fixtures, and systems forming the Work. Does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components required for reuse.

1.04 TRANSPORTATION AND HANDLING

- A. Transport and handle products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.
- C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

1.05 STORAGE AND PROTECTION

- A. Store and protect products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight, climate controlled enclosures.
- B. For exterior storage of fabricated products, place on sloped supports, above ground.
- C. Provide off-site storage and protection when site does not permit on-site storage or protection.
- D. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation.
- E. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.

- F. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- G. Arrange storage of products to permit access for inspection. Periodically inspect to assure products are undamaged and are maintained under specified conditions.

1.06 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Any product meeting those standards or description as approved by Owner's Project Manager.
- B. Products Specified by Naming One or More Manufacturers: Products of manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

1.07 SUBSTITUTIONS

- A. Instructions to Bidders specify time restrictions for submitting requests for Substitutions during the bidding period to requirements specified in this Section.
- B. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.
- C. A request constitutes a representation that the Bidder:
 - 1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
 - 2. Will provide the same warranty for the Substitution as for the specified product.
 - 3. Will coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to Owner.
 - 4. Waives claims for additional costs or time extension which may subsequently become apparent.
- D. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.
- E. Substitution Submittal Procedure:
 - 1. Submit three copies of request for Substitution for consideration. Limit each request to one proposed Substitution.
 - 2. Submit shop drawings, product data, and certified test results attesting to the proposed product equivalence.
 - 3. The Owner's Project Manager will notify Design-Builder, in writing, of decision to accept or reject request.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01650**STARTING OF SYSTEMS****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Starting systems.
- B. Demonstration and instructions.
- C. Testing, adjusting, and balancing.

1.02 RELATED SECTIONS

- A. Section 01400 - Quality Control: Manufacturers' field reports.
- B. Section 01700 - Contract Closeout: System operation and maintenance data and extra materials.

1.03 STARTING SYSTEMS

- A. Coordinate schedule for start-up of various equipment and systems.
- B. Notify Owner's Program Manager seven days prior to start-up of each item.
- C. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, or other conditions which may cause damage.
- D. Verify that tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
- E. Verify wiring and support components for equipment are complete and tested.
- F. Execute start-up under supervision of responsible Design-Builder's and/or Sub-contractors' personnel in accordance with manufacturers' instructions.
- G. When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, check and approve equipment or system installation prior to start-up, and to supervise placing equipment or system in operation.
- H. Submit a written report in accordance with Section 01400 that equipment or system has been properly installed and is functioning correctly.

1.04 DEMONSTRATION AND INSTRUCTIONS

- A. Demonstrate operation and maintenance of Products to Owner's personnel two weeks prior to date of Substantial Completion.
- B. Demonstrate Project equipment and instruct in a classroom environment located at Owner's site and instructed by a manufacturers' representative who is knowledgeable about the Project.

- C. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.
- D. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owners' personnel in detail to explain all aspects of operation and maintenance.
- E. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at agreed-upon times, at equipment location.
- F. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.
- G. The amount of time required for instruction on each item of equipment and system is that specified in individual sections.

1.05 TESTING, ADJUSTING, AND BALANCING

- A. Design-Builder shall perform testing, adjusting and balancing.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01700**CONTRACT CLOSEOUT****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Closeout procedures.
- B. Project record documents.
- C. Inspection certificates.

1.02 RELATED SECTIONS

- A. Section 01500 - Construction Facilities and Temporary Protection: Progress cleaning.
- B. Section 01650 - Starting of Systems: System start-up, testing, adjusting, and balancing.
- C. Section 01710 - Clean-up
- D. Section 01730 - Operation and Maintenance Data.
- E. Section 01740 - Warranties and Bonds.

1.03 CLOSEOUT PROCEDURES

- A. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Owner's Project Manager's inspection.
- B. Provide submittals to Owner's Project Manager that are required by governing or other authorities.
- C. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, sum remaining due, and all required back-up material.

1.04 PROJECT RECORD DOCUMENTS

- A. Maintain on site, one complete set of the following record documents in good order; record actual revisions to the Work which shall be marked in red on the documents:
 - 1. Contract Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other Modifications to the Contract.
 - 5. Reviewed shop drawings, product data, and samples.
- B. Store Record Documents separate from documents used for construction.
- C. Record information concurrent with construction progress.

- D. Specifications: Legibly mark and record at each Product section description of actual Products installed, including the following:
 - 1. Manufacturer's name and product model and number.
 - 2. Product substitutions or alternates utilized.
 - 3. Changes made by Addenda and Modifications.
- E. Record Documents and Shop Drawings: Legibly mark each item to record actual construction including:
 - 1. Measured depths of foundations in relation to finish main floor datum.
 - 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
 - 4. Field changes of dimension and detail.
 - 5. Details not on original Contract Drawings.
- F. Delete Architect/Engineer title blocks from all documents.
- G. Prior to each requisition for payment, the Design-Builder shall bring the Record Documents up-to-date for the Owner's Project Manager's acceptance. Payments may be withheld until the Owner's Project Manager is satisfied with the status of the Record Documents.
- H. Upon completion of work and prior to the request for final payment, the Design-Builder shall deliver to the Owner's Project Manager the completed set of Record Documents. In addition, the Design-Builder shall have delivered to the Owner's Project Manager photographic mylar reproducible copies of the original tracings, corrected to record status, together with two sets of full-size and three sets of reduced size (18" x 24") blue line prints of the updated record drawings.

1.05 INSPECTION CERTIFICATES

- A. Submit certificates from applicable local governmental agencies that the construction has been inspected as required by laws or ordinances and that the building has been approved for occupancy.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01710**CLEANING UP****PART 1 - GENERAL****1.01 GENERAL REQUIREMENTS:**

- A. Design-Builder shall keep the project site free from accumulation of waste materials and rubbish at all times during the construction period. At completion of the Work, he shall remove all waste materials and rubbish from and about the Project, as well as his tools, construction equipment, machinery and surplus materials, except those specifically required by the Contract Documents to be left for the Owner's maintenance.
- B. If Design-Builder fails to keep project clean or to clean up prior to Date of Substantial Completion, the Owner may do so and the cost thereof will be charged to the Design-Builder.

1.02 STAGING PLAN

- A. A staging plan shall be submitted by the Design-Builder for approval by the Owner's Project Manager. The Plan shall locate all temporary facilities and services; parking for Design-Builder's employees, storage, and equipment; and trailers.

1.03 SAFETY REQUIREMENTS:

- A. Store volatile waste in covered metal containers. Remove from project site daily.
 - 1. Allow no volatile wastes to accumulate on project site.
 - 2. Provide adequate ventilation during use of volatile substances.
- B. Comply with local anti-pollution laws. Do not burn or bury waste materials and rubbish on project site.
- C. Do not dispose of volatile wastes such as mineral spirits, oil or paint thinner in storm or sanitary drains, on pavements or in gutters or elsewhere on project site.
- D. Dispose of no waste or cleaning materials which contain materials harmful to plant growth on project site. Clean up materials which are accidentally spilled as quickly as possible.

1.04 CLEAN-UP DURING CONSTRUCTION:

- A. Execute cleaning procedures twice weekly to insure that building, project site and adjacent properties are maintained free from debris and rubbish.
- B. Wet down materials subject to blowing. Throw no waste materials from heights.
- C. Provide covered, on-site containers for waste collection. Place all waste materials and rubbish in containers in an expeditious manner to prevent accumulation. Remove waste from project site when containers become full.
- D. Legally dispose of all waste materials, rubbish, volatile materials and cleaning materials off project site.
- E. Dispose of no materials in waterways.
- F. At time finishing work begins, maintain project in a "broom-clean" state until Date of Substantial Completion. Protect newly finished and clean surfaces from contamination during cleaning operations.

- G. Allow no accumulation of debris which contributes to survival or spread of rodents, roaches or other pests.
 - 1. Remove debris containing food scraps on a daily basis.
 - 2. Should pests inhabit project, Design-Builder shall be responsible for securing services of a pest exterminator at no additional cost to the Owner.

1.05 FINAL CLEAN-UP

- A. Prior to Date of Substantial Completion clean all finished surfaces in accordance with manufacturer's product data and requirements specified in trade sections. All general and specific cleaning shall be performed prior to Design-Builder's request that the project be inspected for Substantial Completion.
- B. Remove dust, debris, oils, stains and fingerprints and labels from exposed interior and exterior finish surfaces, including glazing materials.
- C. Repair, patch and touch up marred surfaces to match adjacent finishes. Replace materials which cannot be repaired or patched.
- D. Clean disturbed areas of project site of debris.
 - 1. Broom clean paved surfaces. Remove oil and similar deleterious substances.
 - 2. Remove debris from grassed and landscaped areas and from undisturbed areas, if contaminated, in most expeditious manner.
- E. Replace air conditioning filters if units were operated during construction period. Clean ducts, blowers and coils if units were operated without filters.
- F. Clean roof of leaves, debris and trash. Clean out roof drains of foreign matter and check to see that there is free flow of water. Clean exposed surfaces which have been marred with roofing bitumen or flashing material. Clean vents and louvers of debris and foreign matter.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION – NOT USED

END OF SECTION

SECTION 01730**OPERATION AND MAINTENANCE DATA****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Section Includes
 - 1. Format and content of manuals.
 - 2. Instruction of Owner's personnel.
 - 3. Schedule of submittals.

1.02 RELATED SECTIONS

- A. Related Sections
 - 1. Section 01300 - Submittals: Shop drawings, product data, and samples.
 - 2. Section 01400 - Quality Control: Manufacturer's instructions.
 - 3. Section 01400 - Quality Control: Test and balance reports.
 - 4. Section 01600 - Material and Equipment: Systems demonstration.
 - 5. Section 01700 - Contract Closeout: Contract Closeout Procedures.
 - 6. Section 01740 - Warranties and Bonds.
 - 7. Individual Specifications Sections: Specific requirements for operation and maintenance data.

1.03 QUALITY ASSURANCE

- A. Prepare instructions and data by personnel experienced in maintenance and operation of described products.

1.04 FORMAT

- A. Format
 - 1. Prepare data in the form of an instructional manual. Two copies of each manual to be submitted to Owner's Project Manager prior to submission of final pay application.
 - 2. Binders: Commercial quality, 8-1/2 x 11 inch three-ring binders with hardback, cleanable, plastic covers; one inch maximum ring size. When multiple binders are used, correlate data into related consistent groupings.
 - 3. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; list title of Project; identify subject matter of contents.
 - 4. Arrange content by systems under section numbers and sequence of Table of Contents of this Project Manual.
 - 5. Provide tabbed fly leaf for each separate product and system, with typed description of product and major component parts of equipment.
 - 6. Text: Manufacturer's printed data, or typewritten data on 20 pound bond paper.
 - 7. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.

1.05 CONTENTS, EACH MANUAL

- A. Contents and Manual
 - 1. Table of Contents: Provide title of Project; names, addresses, and telephone numbers of Owner / Owner's Project Manager, subconsultants, and Design-Builder with name of responsible parties; schedule of products and systems, indexed to content of the volume.
 - 2. For Each Product or System: List names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.

3. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
4. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.
5. Type Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions specified in Section 01400.
6. Warranties and Bonds: As specified in Section 01740.

1.06 MANUAL FOR MATERIALS AND FINISHES

A. Manual for Materials and Finishes

1. Building Products, Applied Materials, and Finishes: Include product data, with catalog number, size, composition, and color and texture designations.
2. Instructions for Care and Maintenance: Include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
3. Moisture Protection and Weather Exposed Products: Include product data listing applicable reference standards, chemical composition, and details of installation. Provide recommendations for inspections, maintenance, and repair.
4. Additional Requirements: As specified in individual product specification Sections.
5. Provide a listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

1.07 MANUAL FOR EQUIPMENT AND SYSTEMS

A. Manual for Equipment and Systems

1. Each Item of Equipment and Each System: Include description of unit or system, and component parts. Identify function, normal operating characteristics, and limiting conditions. Include performance curves, with engineering data and tests, and complete nomenclature and commercial number of replaceable parts.
2. Panelboard Circuit Directories: Provide electrical service characteristics, controls and communications.
3. Include color coded wiring diagrams as installed.
4. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include seasonable and any special operating instructions, including times of sugar cane field burning.
5. Maintenance Requirements: Include routine procedures and guide for trouble-shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
6. Provide servicing and lubrication schedule, and list of lubricants required.
7. Include manufacturer's printed operation and maintenance instructions.
8. Include sequence of operation by controls manufacturer.
9. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
10. Provide control diagrams by controls manufacturer as installed.
11. Provide Design-Builder's coordination drawings, with color coded piping diagrams as installed.
12. Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
13. Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
14. Include test and balancing reports as specified in Section 01400.
15. Additional Requirements: As specified in individual product specification Sections.

16. Provide a listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

1.08 INSTRUCTION OF OWNER PERSONNEL

- A. Before final inspection, instruct Owner's designated personnel in operation, adjustment, and maintenance of products, equipment, and systems, at agreed upon times.
- B. For equipment requiring seasonal operation, perform instructions for other seasons within six months.
- C. Use operation and maintenance manuals as basis for instruction. Review contents of manual with personnel in detail to explain all aspects of operation and maintenance.
- D. Prepare and insert additional data in Operation and Maintenance Manual when need for such data becomes apparent during instruction.

1.09 SUBMITTALS VOLUMES/MANUALS

- A. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Owner's Project Manager will review draft and return one copy with comments.
- B. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit documents within ten days after acceptance.
- C. Submit one copy of completed volumes in final form 15 days prior to final inspection. Copy will be returned after final inspection, with Owner's Project Manager's comments. Revise content of documents as required prior to final submittal.
- D. Submit three copies of revised volumes of data in final form within ten days after final inspection.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01740**WARRANTIES AND BONDS****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Preparation and submittal.
- B. Time and schedule of submittals.

1.02 RELATED SECTIONS

- A. Section 00100 - Instructions to Bidders: Bid Bonds.
- B. Section 00700 - General Conditions: Performance Bond and Labor and Material Payment Bonds, Warranty, and Correction of Work.
- C. Section 01700 - Contract Closeout: Contract closeout procedures.
- D. Section 01700 - Contract Closeout.
- E. Individual Specifications Sections: Warranties required for specific products or Work.

1.03 FORM OF SUBMITTALS

- A. Bind in commercial quality, 8-1/2 x 11 inch three-ring side binders with hardback, cleanable, plastic covers.
- B. Label cover of each binder with typed or printed title WARRANTIES AND BONDS, with title of Project; name, address and telephone number of Design-Builder and equipment supplier; and name of responsible principal.
- C. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the specification Section in which specified, and the name of the product or work item.
- D. Separate each warranty or bond with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary. List Subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.

1.04 PREPARATION OF SUBMITTALS

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within ten days after completion of the applicable item or work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until the Date of Substantial Completion is determined.
- B. Verify that documents are in proper form, contain full information, and are notarized.
- C. Co-execute submittals when required.

- D. Retain warranties and bonds until time specified for submittal.

1.05 TIME OF SUBMITTALS

- A. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within ten days after acceptance.
- B. Make other submittals within ten days after Date of Substantial Completion, prior to final Application for Payment.
- C. For items of Work when acceptance is delayed beyond Date of Substantial Completion, submit within ten days after acceptance, listing the date of acceptance as the beginning of the warranty period.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION